

### *Synthetic Gear Oil*

#### **DESCRIPTION**

Tribol 800 Gear Oils were developed for service in enclosed gear drives, journals and anti-friction bearings. Tribol 800 Gear Oils are typically used where heavy load conditions and high operating temperatures prevail. They differ from mineral oil-based gear oils in the following characteristics:-

- excellent oxidation stability (even at high temperatures)
- outstanding viscosity temperature stability (extremely high viscosity index without using VI improvers)
- Tribol 800 Gear Oils are manufactured from the highest quality polyglycol base oils.
- Tribol 800 Synthetic Gear Oils are available in viscosity grades ISO 100 to ISO 1000.

#### **APPLICATION**

The excellent properties of Tribol 800 Synthetic Gear Oils are especially evident in lubrication of mechanically and/or thermally highly loaded friction surfaces. They are especially suited for service in highly loaded enclosed gear drives (spur, helical, bevel and worm gears). The lubrication of anti-friction and journal bearings in paper machines, PVC calanders, kneaders, extruders and mills.

#### **Temperature Range**

Sustained oil reservoir temperatures up to +140°C/285°C with short time exposure to peak temperatures up to 200°C.

#### **BENEFITS**

- ◆ Considerable decrease in maintenance costs, by prolonged service life of lubricant and machine parts.
- ◆ Long life, extended drain intervals are possible because of the natural resistance of the synthetic base to ageing or oxidation. Advanced Tribol lubrication technology forms friction-fighting, anti-wear films that can significantly reduce local operating temperatures as gear teeth or bearing surfaces come into contact.
- ◆ More protection for gears in severe service. The extended EP performance of Tribol 800 Gear Oils offers protection beyond the capabilities of conventional mineral oils.

- ◆ Wear protection under conditions of extreme temperature fluctuation and high loads.
- ◆ High efficiency and lower oil temperature, especially in worm gear units.
- ◆ Corrosion protection of cast and steel surfaces through special additive packages, even in the presence of water.
- ◆ Compatibility with non-ferrous metals through well formulated synergistic additives.
- ◆ Energy savings as a result of a lower coefficient of friction.

### NOTES

- Tribol 800 Synthetic Gear Oils are not compatible with mineral oil based lubricants. Therefore a thorough cleaning of gearboxes, bearings and oil sump are recommended.
- Traces of previous oil remaining in the gear case after draining will not pose any problems. However, to achieve long drain cycles and obtain the economic advantages, lubrication system (containers, pipes, pumps etc.) must be free of contaminants.
- Condensing water may be absorbed in limited quantities (2%) without the danger of corrosion or change in viscosity.
- Tribol 800 Synthetic Gear Oils are seal compatible, e.g. NBR, FPM, other materials on request.
- For further information on this subject please consult Tribol Technical Bulletin TB 3213 (E) 3/91.
- Tribol Synthetic Gear Oils are compatible with modern one component and two component lacquers.
- Quality Standard  
Tribol 800 Synthetic Gear Oils are CLP-PG Oils (acc DIN 51502) and exceed minimum requirements according DIN 51517, T.3 for CLP gear oils.

**TYPICAL PHYSICAL CHARACTERISTICS**

German Article N°	2616
ISO Viscosity Grade (DIN 51519)	220
Density @ 15·C, g/ml DIN 51757	1.047
Base Oil Properties	
@ 40·C, cSt (DIN 51550)	236
@ 100·C, cSt	40
Neutralisation N° (DIN 51558) mgKOH/g	0.6
Viscosity Index (ISO 2909)	225
Flash Point, ·C (DIN 51376)	290
Pour Point, ·C (ISO 3016)	-32
Corrosion Test (DIN 51585) Test A (distilled water)	0
4-Ball EP Test (DIN 51350-04-A), Weld Load, N	1600/1800
4-Ball Wear Test (DIN 51350-05-E), Scar Diameter, mm	0.27
FZG Test (DIN 51354 A/8. 3/90) Scoring Load Stage	> 12
Foaming Properties (DIN 51566), ml	
@ 25·C	0
@ 95·C	50/0
@ 25·C after 95·C	0

Subject to usual manufacturing tolerances.

Health and Safety information sheets are available for all Castrol products from the address below:

Castrol Polska Sp.z.o.o., ul. Puławska 303, 02-785 Warszawa, Poland, Phone: (22) 5494900, Fax: (22) 5494911

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